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Labanotation is Creative: How a Systems Perspective Reveals Generativity in Dance Notation and its Archives

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Abstract

Labanotation is commonly viewed as a purely quantitative form of description. Because of the preoccupation in the world of professional and educational dance on the individual's act of movement invention, scholars often overlook Labanotation's systemic creativity. Scholarship to date has more commonly discussed Motif Notation and Creativity. However, when studied in light of Csikszentmihalyi's 'systems model of creativity' as an integrated environment of individual, field, and domain, Labanotation shows itself to be a vehicle for creativity. Recognition of the creativity of notators, notation technologists, and stagers can benefit the field if it is recognized and articulated. This article combines historical analysis and qualitative analysis of present-day creative notation work. It discusses examples drawn from an archival collection of Labanotation materials that explain various ways in which Labanotation promotes creativity. The examples discussed draw upon archival materials to Doris Green's system for notating African dance and drumming, the technological innovation of Lucy Venable's software program LabanWriter, and the creative re-framing of an authentic restaging of excerpts from Anna Sokolow's *Rooms* by Valarie Williams.

Keywords: dance, Labanotation, Motif Notation, education, creativity

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Introduction

Everyday debates on whether creativity is innate or taught generally equate creativity with individual artistic expression. However, as a Labanotation/ Kinetography Laban[1] practitioner, I observe creativity in more than just the work of individual artists. Labanotation is a language for movement analysis and documentation that encompasses three types of movement description, *Motif Notation, Effort-Shape*, and *structured* description.[2] Motif Notation documents the essence of movement; Effort-Shape description looks at movement quality; and structured description, the focus of this article, records each body part's specific position and timing on a staff in detail. Labanotation involves many processes for communicating, observing, and recording, and the manner in which these processes evolve in a community is a system of sharing and knowing. Just as a choreographer answers the human calling to create by bringing a dance into existence, the notator answers the same human need by creating new notation symbols, concepts, and scores. Thus, any interaction with a structured Labanotation score is fundamentally creative.

Building on the assumption that using Labanotation is essentially a creative act, this article takes a social view of creativity. The language of Labanotation and collections of Labanotation scores exist only because of creative interactions between notators, notation organizations, dance creators, and institutions. These interactions reveal that Labanotation is a creative system that produces novel, useful products and ideas. Therefore, Labanotation yields generation and creation in the dance culture as it shapes the thinking, tools, and practices both within and beyond the dance arts. I propose that existing theories of creativity as a socio-cultural phenomenon help explain how creativity has flowed in and around the language of Labanotation.

Many scholarly conversations within the Labanotation field are prescriptivist, focusing more on applying rules to execute correct orthography than on the generative, iterative nature of the processes involved in developing, refining, and using the language. This focus on clinical and technical usage of the language according to grammatical and syntactical rules takes Labanotation to be strictly a recording device, leaving creativity and aesthetics to the artists. What if, instead of

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1. The system is called "Labanotation" in the United States and "Kinetography Laban" in Europe; these are essentially two versions of the same language with slight differences. Because the author is in the United States, this article generally uses the term "Labanotation" to refer to the system unless specifying the system in a historical context before 1951 or a geographic context outside the United States. Ann Hutchinson Guest, *Labanotation: The System of Analyzing and Recording Movement*, *4th Edition* (Routledge, 2005). Albrecht Knust, *Dictionary of Kinetography Laban* Vol. 2. (MacDonald and Evans, 1979).

2. Guest, *Labanotation: The System of Analyzing and Recording Movement*, 4th ed, 9.

assuming the most critical aspect of Labanotation is its functional value as a tool in service to an artist, we were to examine the inherent creativity embedded in the cultural construct of the language? What if we looked at creativity as a natural symptom of the socio-cultural system of Labanotation, a system that involves notators, notation training programs, professional roles, organizations, cultural knowledge of dance, and the interactions between all of these individuals, groups, and processes?

Because it is a language constructed by people in social groups, a full accounting of the relationship between the Labanotation system and creativity should address the work of individual notators, the activities of the notation field, and the role of notation in advancing and sustaining cultural understanding of dance. My view is that to see how Labanotation facilitates creativity, we must conceptualize its history as a dynamic system of creative interactions between people, organizations, and one's culture.

However, scholars addressing creativity and notation generally assume that creativity is an individual process, not a social one. For example, several researchers rightly suggest that Motif Notation can be used to promote the creativity of individual students or teachers in the classroom, including Curran,[3] Heiland,[4] Press and Warburton,[5] Ashley,[6] and Lohmiller.[7] These researchers are correct in connecting individual creative development to the use of Motif Notation in the classroom, but do not address the creative system around the classroom, as this article aims to do.

Furthermore, many philosophical debates on directing dance works from the notation score locate creativity, if they agree it should be there, in the stager's creative choices.[8] Curran draws a helpful connection between the initial "creation"

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3. Tina Curran, "The Experience of Staging Nijinsky's *L'Apres-midi d'un Faune in a Higher Education Dance Program"* (PhD diss., New York University, 2010), 14.

4. Teresa L. Heiland, "Constructionist Dance Literacy: Unleashing the Potential of Motif Notation," in *Dance: Current Selected Research: A Twenty-Year Retrospective/Focus on Movement Analysis,* ed. Lynnette Y. Overby and Billie Lepczyk (Brooklyn, AMS Press, 2009), 27–58, https://www.researchgate.net/profile/Teresa-Heiland/publication/274392818 Constructionist_Dance_Literacy_Unleashing_the_Potential_of_Motif_Notation/links/551f413a0cf 29dcabb0871bd/Constructionist-Dance-Literacy-Unleashing-the-Potential-of-Motif-Notation.pdf.

5. Carol M. Press and Edward C. Warburton, "Creativity Research in Dance," in *International Handbook of Research in Arts Education*. ed. Liora Bresler (Dordrecht: Springer Netherlands, 2007), 1273–90, https://doi.org/10.1007/978-1-4020-3052-9_87.

6. Linda Ashley, "Let's Get Creative About Creativity in Dance Literacy: Why, Why Not, and How?" *Journal of Movement Arts Literacy* 1, no. 1 (2013): 1–11, http:// digitalcommons.lmu.edu/jmal/vol1/iss1/1.

7. Michelle Lohmiller, "Motif Writing: A Creative Tool," *Journal of Physical Education and Recreation* 48, no. 2 (1977): 60–63, https://doi.org/10.1080/00971170.1977.10617606.

8. Ann Hutchinson Guest, "Is Authenticity to Be Had?" *Preservation Politics: Dance Revived, Reconstructed, Remade* (London: Dance Books Ltd, 2000): 65–71; Lesley Main. *Directing*

and later "*re*creation" of a dance work using the Labanotation score, stating that both processes involve "inspiration, inquiry, exploration, preparation, selection, revision, presentation, and reflection."[9] Although she and others are right to point out that restaging is a creative process, such discussions generally do not address the fact that the scores are creative products and the language of Labanotation itself is also a creative product. Without the devised symbolic language of Labanotation to describe the dance, the stager would have no detailed written record to interpret and thus no opportunity to be creative in their interpretation of the scored work. This article points out that the language of Labanotation and the context around it are also fruitful subjects in a study of creativity.

In summary, I propose a conceptualization of creativity in Labanotation that considers notators, the social organizations of Labanotation, and the modes of transmission of Laban-based knowledge. Accordingly, this article examines textual evidence of creativity in Labanotation as a systemic phenomenon rather than a solely individual one and shows how creativity flows in and around Labanotation. Ultimately, I put forward that Labanotation is a dynamic "virtual space"[10] where individuals, society, and culture interact to produce new expressions of thought and embodiment.

It is essential to study creativity in Labanotation holistically to understand the system's potential. It is only by conceptualizing Labanotation as a set of complex interactions between individuals, society, and culture that we can accurately see the creativity in its past and imagine new directions for dance notation. However, to understand what Labanotation offers to the world as a creative system, we must first define the term "creativity."

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the Dance Legacy of Doris Humphrey: The Creative Impulse of Reconstruction (Madison, WI: The University of Wisconsin Press, 2012); Muriel Topaz, "Reconstruction: Living or Dead? Authentic or Phony?" *Preservation Politics: Dance Revived, Reconstructed, Remade* (London: Dance Books Ltd, 2000): 97–104.

9. Curran, "The Experience of Staging Nijinsky's *L'Apres midi d'un faune,"* 2010, 51.

10. Mihalyi Csikszentmihalyi, *The Systems Model of Creativity* (Dordrecht: Springer, 1999), 100.

Definition of Creativity

This article defines creativity as a process that creates a product or idea that is both new and is used by others in a context.[11,12] Alternatively, in the words of Plucker, Beghetto, and Dow, "Creativity is the interaction among aptitude, process and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context."[13] The critical point stated is that creativity involves both individual ideas and acceptance within a context. That is, creativity requires both that individuals create something new, unique, or surprising and that social groups inform and validate their creations. In the case of Labanotation, some examples of such creativity include when individual notators invent novel notation theory ideas, when an existing score or dance performance prompts creative notation solutions or when the framework of Labanotation produces new forms of thinking about dance.

Multiple styles of creativity fit this definition. In dance, we tend to equate creativity with self-expression. However, creativity may also take the form of a helpful solution to a practical problem. Self-expression is indeed a valuable form of creativity and invention is also creativity.[14] For instance, the Labanotation field has produced numerous practical solutions to the challenge of efficiently producing legible scores that are, according to this definition, creative products.[15] Along these lines, I suggest that proposals for new symbols or usage rules within the system are additional forms of practical creativity.

In addition, it is crucial to consider that novelty is just one component of this definition of creativity; usefulness within a context is also essential.[16] In order to be considered creative, a new notation idea must be original *and* useful. As I will discuss, the Labanotation field offered formal structures for symbol adoption that helped ensure ideas that were incorporated into standard usage were not only original, but also useful.

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11. Mark A. Runco and Garrett J. Jaeger, "The Standard Definition of Creativity," *Creativity Research Journal* 24, no. 1 (January 2012): 95, https://doi.org/10.1080/10400419.2012.650092.

12. Morris I. Stein, "Creativity and Culture," *The Journal of Psychology* 36, no. 2 (October 1953): 311, https://doi.org/10.1080/00223980.1953.9712897.

13. Jonathan A. Plucker, Ronald A. Beghetto, and Gayle T. Dow, "Why isn't Creativity More Important to Educational Psychologists? Potentials, Pitfalls, and Future Directions in Creativity Research," *Educational Psychologist*, 39 no. 2 (June 2004): 83-96, http://www.tandfonline.com/doi/abs/10.1207/s15326985ep3902_1.

14. Vlad Petre Glăveanu, "Educating Which Creativity?" *Thinking Skills and Creativity* 27 (March 2018): 25–32, https://doi.org/10.1016/j.tsc.2017.11.006.

15. Lucy Venable, "Labanwriter: There Had To Be a Better Way," *Dance Research: The Journal of the Society for Dance Research* 9, no. 2 (1991): 76, https://doi.org/10.2307/1290596.

16. Runco and Jaeger, "The Standard Definition of Creativity," 92.

Structured Labanotation: Fundamentally a Creative System

This section builds on the assumption previously stated that any engagement with a Labanotation score is fundamentally creative. A closer look at the small acts of invention involved in engaging with a structured Labanotation score helps explain how scoring and reading notation are both creative acts.

For example, take a notator's process of scoring movement in structured description. The notator observes movement, breaks it down into components, then selects symbols to stand for these components. The Labanotator must select what is salient about the movement and choose how densely to specify details in the score. As Williams states, "The notator's discovery becomes about her ability to 'see' what is happening in the studio, discern what is being described through both body movement and oral descriptors, and figure out which symbols best express the movement to readers who have never seen the choreography performed."[17] In other words, even working within Labanotation's clear usage rules, the notator engages in a process of making. By choosing one symbol or syntax over another, the notator participates in constructing a meaningful written record of dance. The fact that there are multiple ways to 'correctly' notate a movement makes writing movement with Labanotation a creative process.

So too, a reader interpreting a Labanotation score is creative. Labanotation is read by reconstructing discreet symbols on the page into a flowing movement sequence. The reader must reassemble the spatial positions in the Labanotation score to make the movement flow. The process of translating from a series of positions to a stream of movement necessarily involves constructing a sense of coherent movement intention. Thus, reading the score recruits the reader's imagination, and therefore is also a creative act.

Hence, in both scoring and interpreting a score, Labanotation produces opportunities for creative choices and exploration. However, the creativity in Labanotation goes beyond reading and writing to include social creativity. Every act of individual reading and writing depends on the creative social context that produced the symbol system and the score.

Of course, Labanotation is a social tool for communication; after all, it is a language. Language is defined as "a systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meanings."[18] This definition assumes the relationality of language use. In particular, Labanotation is an *artificial language* as opposed to a *natural*

17. Valarie Williams, "Writing Dance: Reflexive Processes-at-Work Notating New Choreography," *Journal of Movement Arts Literacy* 4, no. 1 (2018): 1–22, https://libjournal.uncg.edu/ jmal/article/view/1880/0.

18. *Merriam-Webster.com Dictionary*, s.v. "language," accessed September 1, 2021, https://www.merriam-webster.com/dictionary/language.

language. A natural language is a "language of ordinary speaking and writing."[19] In contrast, an artificial language is "a language devised by an individual or a small group of individuals and proposed for an international language or for some more specific purpose (such as aptitude testing) but not functioning as the native speech of its users."[20] Labanotation is an artificial language[21] that depends on usage rules constructed through a debate process within a relatively small group of people in notation organizations. The use of a Labanotation score depends on productive interpersonal interactions where social groups (notation organizations) structure the process of change of the agreed-upon system. I propose that these socially mediated changes to the system are a type of creativity. In addition, the transmission of movement knowledge through culture via Labanotation scores eventually helps those movement ideas become part of the architecture of cultural knowledge of dance. Consequently, it is clear that Labanotation is a complex system where creativity is layered throughout, and looking at these layers and their relationships can shed light on how creativity emerges in this system. This complexity requires a framework of analysis to help recognize the range of instances of creativity; Mihalyi Csikszentmihalyi's *systems model of creativity* provides a theoretical basis to explain the various ways that Labanotation fosters creativity in these interactions between individual, society, and culture.[22]

Framework: The Systems Model of Creativity

Csikszentmihalyi's systems model is an approach that is suitable for analyzing the world of reading, writing, and creating Labanotation and Labanotation scores. The systems model locates creativity in the *individual*, the *field*, the *domain*, and in their interactions.[23] As diagrammed in figure 1, the systems model applies to notation as follows: (1) the individual notator contributes new notation applications; (2) the field is the social structures of Labanotation, including formal training, publications, and professional organizations. The Labanotation field stimulates

19. *Merriam-Webster.com Dictionary*, s.v. "natural language," accessed, September 1, 2021, https://www.merriam-webster.com/dictionary/natural%20language.

20. *Merriam-Webster.com Dictionary*, s.v. "artificial language," accessed September 1, 2021, https://www.merriam-webster.com/dictionary/artificial%20language.

21. Victoria Watts' Derridean analysis of the relationships between movement and notation, oral speech and written text, productively complicates this comparison of Labanotation to verbal language. Victoria Watts, "Dancing the Score: Dance Notation and Différance," *Dance Research: Journal for the Society for Dance Research* 28, no.15 (Summer 2010): 7-18, https://www.jstor.org/stable/40664448.

22. Csikszentmihalyi, *The Systems Model of Creativity*, 103–104.

23. Mihalyi Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (New York: Harper Collins, 1996), 27–32.

individual notators to create. The field also selects ideas from notators to be added to the domain; (3) the domain is the larger realm of dance; the domain stores and transmits movement knowledge via archives, the textual record, and embodied memory.[24]

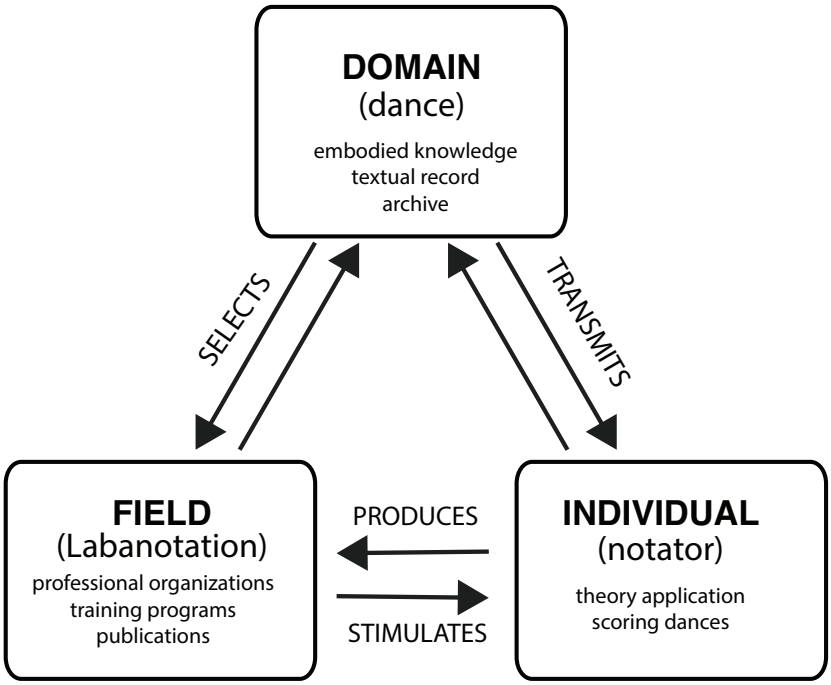

Figure 1. The systems model of creativity applied to Labanotation. Image by the author, adapted from a diagram by McIntyre, Fulton, and Payton.

Methodology

This article gives a descriptive account of creativity in Labanotation's history to argue that Labanotation functions as a creative system. In my research, I examined textual evidence from selected primary sources for examples of creativity specific to the individual, field, and domain aspects and their interrelationship.

Because an exhaustive account of all creativity in Labanotation would be far outside a single article's scope, I was selective, choosing examples from many instances of creativity that best illuminated my interpretation of the Labanotation system as a creative system. In the cases of individual creativity, I primarily

24. Janet Fulton and Elizabeth Paton. "The Systems Model of Creativity" in *The Creative System in Action: Understanding Cultural Production and Practice,* ed. Philip McIntyre, Janet Fulton and Elizabeth Paton (New York: Palgrave MacMillan, 2016), 29.

researched notators' writings. At the field level, I focused on the records and texts created by notation organizations. At the domain level, I examined documents that show Labanotation's written record of its own development and its impact on the domain of dance, such as amalgamations of notation conference papers and score bibliographies. In addition, I also looked for evidence of Labanotation's use in transmitting knowledge to other domains, such as education and science. I posed questions of these texts about the social and cultural context that produced them: How did personal traits and environments of individual notators who played a role in Labanotation's evolution exemplify creativity? How did the field change through proposals for adaptations to the system? How was Labanotation integrated into the archival record and how did Labanotation impact culture?

The body of this article is organized into three sections that address, in turn, each aspect of Csikszentmihalyi's concept of creativity: individual, field, and domain. Because the systems approach assumes interaction between the various parts of the constellation of creativity, each section also describes systemic interactions.

Incidentally, individual biases will also affect judgment in a humanistic article such as this. Towards the goal of transparency, I will briefly note that I work in the role of curator of archival dance materials in an institutional special collections library located in the United States and I speak English as a first language. I am also a teacher and a restager from the Labanotation score. I propose that with the situated nature of this article thus identified, this narrative still offers a practical perspective grounded in established ideas about creativity and in historical evidence.

The Creativity of the Individual Notator

Individual creativity was essential to the historical evolution of Labanotation because it was only as a result of the brilliance of individual notators that new ideas were introduced to the system. Even though individual creativity was vital to Labanotation's history, few existing studies specifically examine the notator's creativity. One exception is notator Valarie Williams' account of creativity in scoring Bebe Miller's *Prey,* a process that required Williams to innovate within Labanotation. Williams also suggests that the systems model is a suitable framework to apply to Labanotation—a point I agree with and expand in this article.[25]

So too, proposals for adaptations to the system are vehicles for the creativity of the Labanotator. For instance, Notators Doris Green and Toni' Intravaia demonstrated the essential creative trait of divergent thinking, or the bringing

25. Williams, "Writing Dance," 17.

together of two previously unrelated ideas,[26] in their inventive variations on Labanotation.

Doris Green is a Labanotator and ethnochoreologist who created Greenotation, a system that builds on standard Labanotation to present an integrated description of the dance+music.[27] Greenotation's method diverged from the Europeanist conventions of dance notation, in which musical notation is considered separately from the dance score. As shown in the Greenotation example in figure 2, three additional staves to the left of the Labanotation staff contain rectangles of varying lengths. These rectangles are either open, shaded, striped, or dotted, denoting varying drum tones. The length of the symbols shows the duration of the note, just as the length of direction symbols in Labanotation show movement duration.[28]

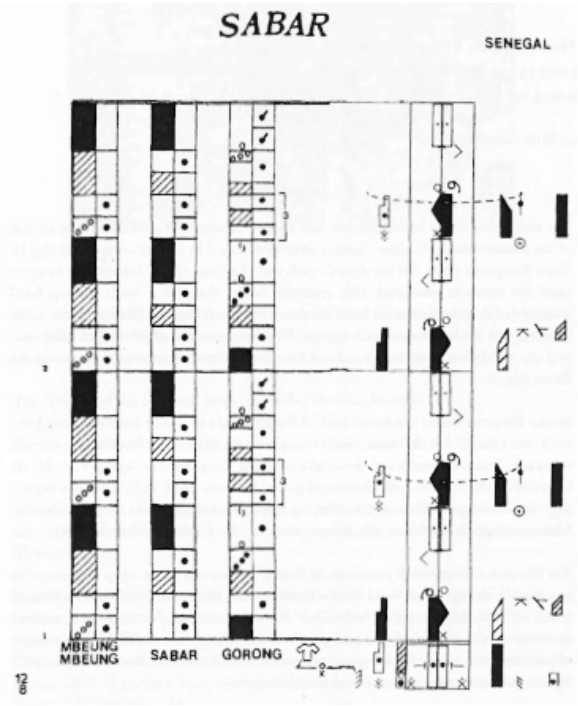

Figure 2. Example of Greenotation, used with permission of Doris Green.

26. Csikszentmihalyi, *The Systems Model of Creativity*, 115–118.

27. Doris Green, "The Creation of Traditional African Dance/Music Integrated Scores," *Journal of Movement Arts Literacy* 4 no 1 (2018): 1–14, https://libjournal.uncg.edu/jmal/article/view/1878/pdf.

28. Doris Green, "Greenotation: From Pitman Stenography to Greenotation" Proceedings of the International Council of Kinetography Laban 28th Biennial Conference, (2013): 223, https://ickl.org/wp-content/uploads/2016/01/Proceedings2013_web.pdf.

This arrangement of drum sounds beside the Labanotation staff diverged from Labanotation's standard assumption, built on European assumptions of the separateness of dance and music. In conventional Labanotation, musical notation scores are often used along with Labanotation scores but are separate. Occasionally a Labanotation score placed a traditional Western musical notation staff, turned on its side, to the left of the movement staff, but Western musical notation cannot fully capture the intricacies of African drum tones and rhythms.[29] Directly connecting the duration of sounds to the relative length of the symbol, Green demonstrated practical innovation with the system.

Moreover, Green's creativity goes beyond modifying Labanotation to create a more accurate dance+music notation system. Because it brings together dance and music in symbolic form, Greenotation departs from conventional Western European approaches to the relationship between music and dance. Green's notation, integrating music and dance, more closely reflects the actuality of African dance+music, where these are unified.[30] Furthermore, Greenotation documents African dance+music, traditionally handed down through oral/physical transmission, with the more Westernized concept of writing down dances.

So too, Toni' Intravaia (1920–2019) proposed creative changes to the notation system. Intravaia was a dancer, teacher, and Labanotator who modified Labanotation to suit the movements of animals and robots. Like Greenotation, Intravaia's notation ideas diverged from standard thinking. A standard Labanotation staff uses 4-6 internal columns to represent the support (for what is assumed to be a normative human body) of two legs (see figure 3).[31] Intravaia changed the staff to accommodate various body shapes of different animals). Intravaia's notation staff uses eight columns to represent a spider's eight legs, plus additional columns outside the staff to represent spider-specific body parts such as fangs, palps, abdomen, and four eyes (see figure 4).[32]

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29. Doris Green, "Greenotation: From Pittman Stenography to Greenotation/Labanotation," 209–23.

30. Doris Green, "Greenotation: From Pittman Stenography to Greenotation/ Labanotation," 209–23.

31. Guest, *Labanotation*, 19–20.

32. John Davis and Toni' Intravaia, "Zygoballus Spider Pilot Project: An Adaptation of Labanotation to Record Animal Behavior And Movement," (Southern Illinois University, 1966, 1970), 34.

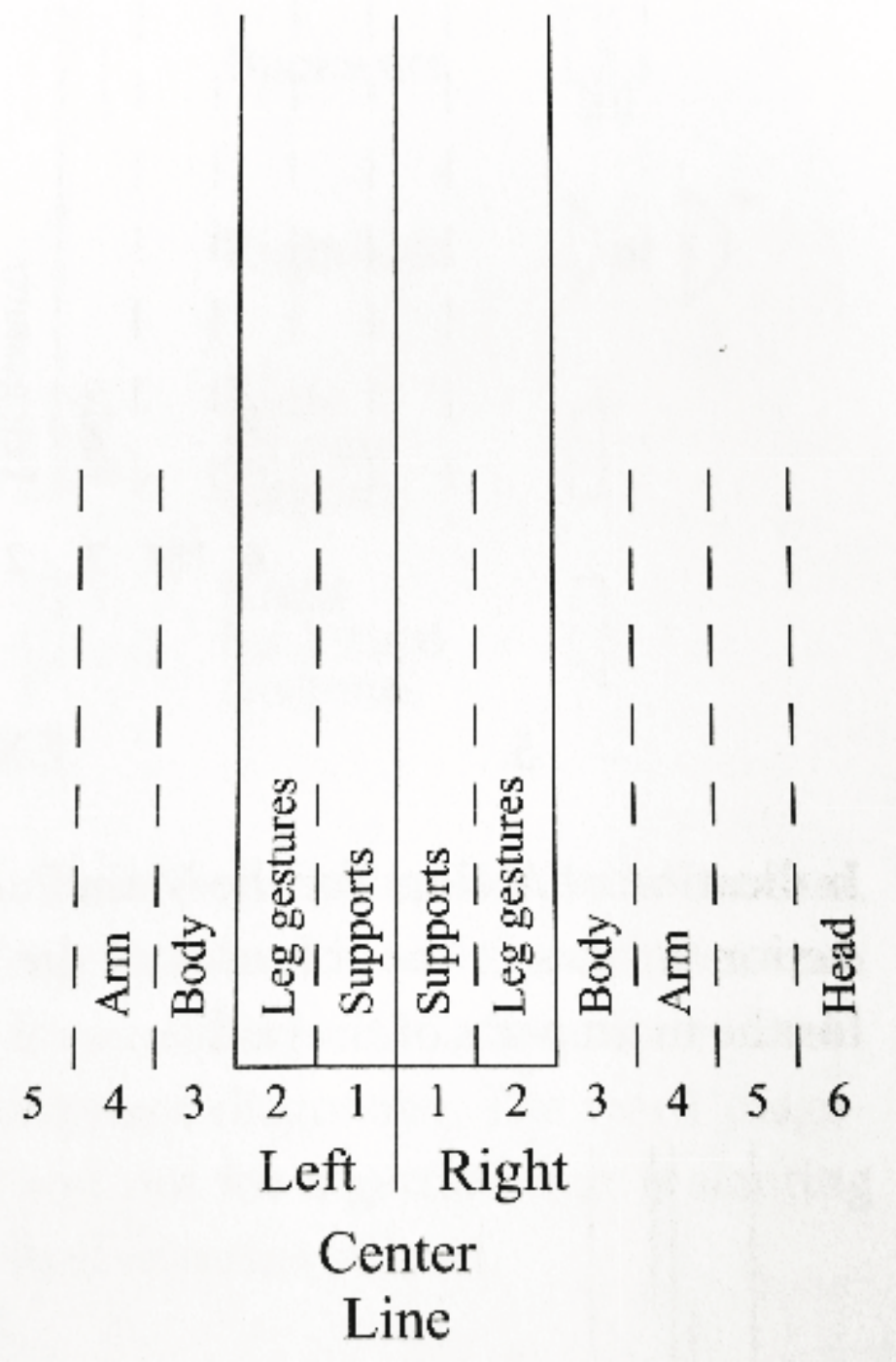

Figure 3. The standard Labanotation staff, used with permission of Ann Hutchinson Guest.

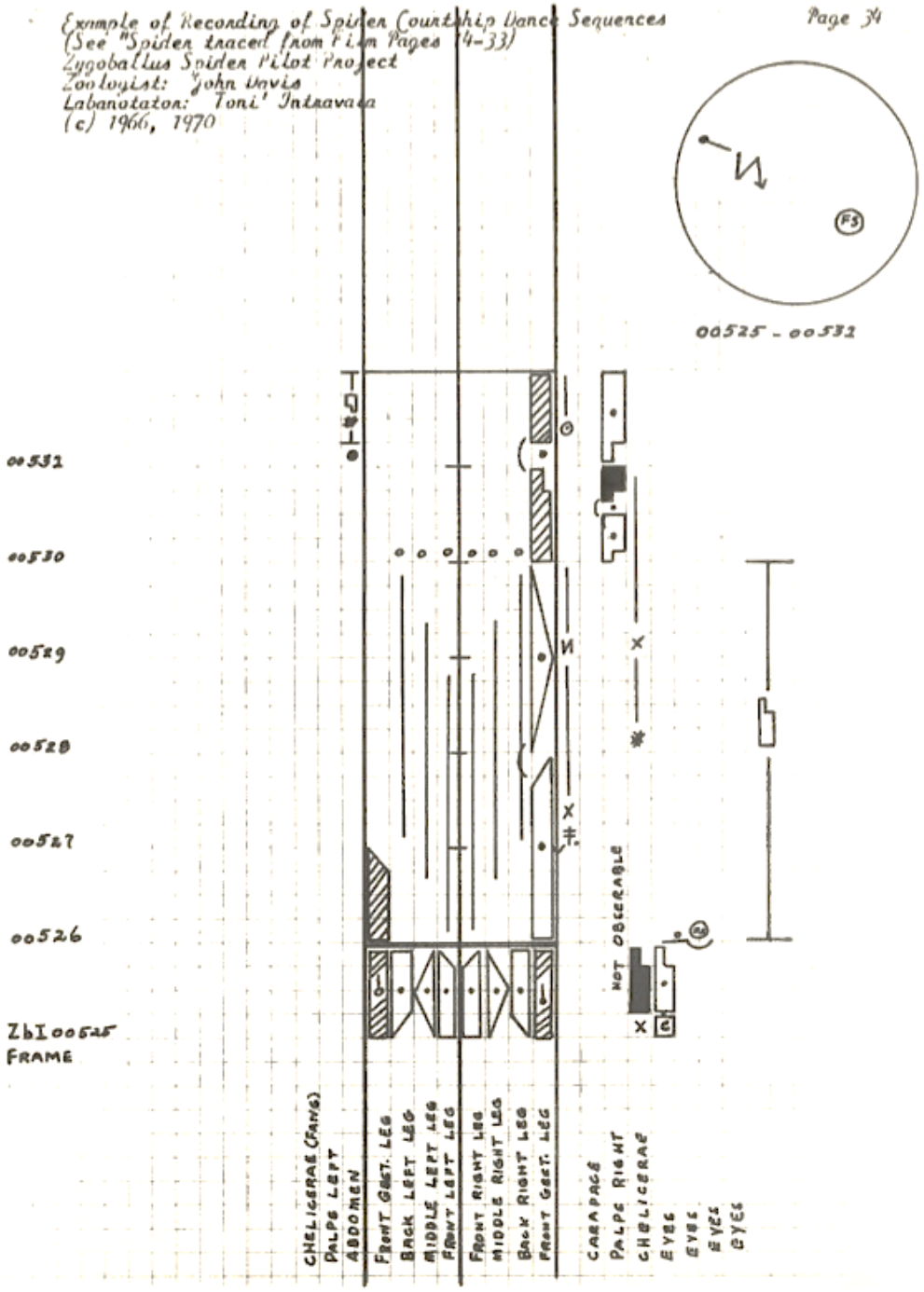

Figure 4. Zygoballus spider staff by Toni' Intravaia.

Intravaia worked with magnified film of the spider, tracing frames to isolate and notate its position (see figure 5).[33] Of course, Intravaia's idea to modify the staff is an original thought in itself. Furthermore, the fact that Intravaia conceived of notating animal movements at all represented a creative leap to conceptualizations of dance. Intravaia circumvented the common assumption that dance is a product of human culture in her notational work that revealed animal and insect movements as a type of dance. Intravaia's creativity blurs boundaries between dance and functional movement and between the human and the non-human.

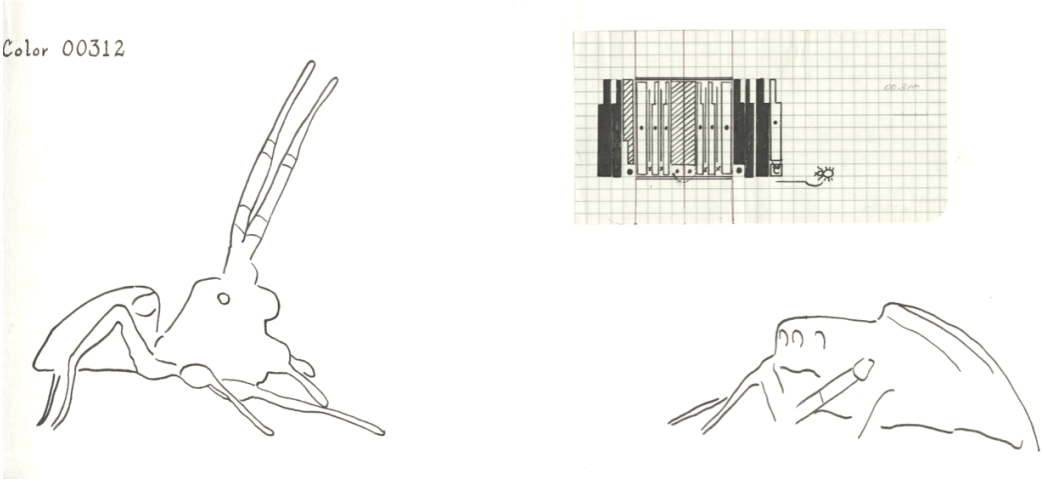

Figure 5. Detail of a spider position in Labanotation.

In addition, around 2015–2016, Intravaia was in her nineties and still producing creative work. She began to discuss notation of robot movements with a few students and colleagues.[34] Intravaia observed a robotics lab at Southern Illinois University and explored sketches of potential ways to notate the movements of robots. She encountered difficulties due to the drastic differences between the movement motivations and procedures of robots versus those of biological forms. She wrote to her friend, notation leader Lucy Venable, asking her to review the robot notation. Her letter states drily, "To notate animals is one thing–but robots."[35]

33. Toni' Intravaia, "Zygoballus Spider Notation," SPEC.TRI.DNB.MISC.3, Dance Notation Bureau Collection, The Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

34. Beth Spezia, Notes on Intravaia Robot Notation, June 16, 2018. Toni' Intravaia Papers on Dance Notation, the Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

35. Toni' Intravaia, Correspondence to Lucy Venable, 2016. Lucy Venable Papers on Dance Notation. SPEC.TRI.LVP, the Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

This note puts into words the leap of thought of Intravaia's project; to extend notation not only to describe non-human movement but non-biological, programmed movement. Whereas the previous innovations Intravaia had done were still living things, now she was working on notating a programmed object with wheels and a single robotic arm instead of legs or wings. In other words, to translate body parts of humans to body parts of animals diverged from the norm, but the shift to robot notation was an even more adventurous extension of the creative process.

Intravaia and Green both provide vibrant examples of the creative thinking of Labanotators about and with the notation system. They worked creatively within structured Labanotation's formal rules to use the system in new ways. Moreover, the field's encouragement of creativity was also a vital element supporting the creativity of the notator. The following section will discuss more specifically how the field has historically fostered creativity in the system.

The Role of the Field

Field organizations that provided sound technical training and social rewards for accomplishments supported the creativity of notators like Green and Intravaia. Based on evidence of their activities found in field newsletters and proceedings papers, Intravaia and Green actively engaged with the Labanotation field through conference presentations, correspondence, membership, and teacher training.[36] Therefore, it is safe to presume that these women's sustained participation in the field was integral to their work. In addition to providing edifying opportunities like publication and training to notators like Green and Intravaia, the field also selected which of the creative ideas of notators were valid and then integrated the selected ideas into the domain.

The Dance Notation Bureau (DNB), a leading organization of the Labanotation field in the United States, was started by Ann Hutchinson, Eve Gentry, Janey Price, and Helen Priest in New York City in 1940.[37] The Bureau promoted "Laban Dance Notation" (as it was called before 1951) through public relations efforts that produced many published articles.[38] The Bureau also

36. ICKL, *Proceedings of the International Council of Kinetography Laban Biennial Conference* 1973, 1975, 1981, 1983, 1985, 1989, 2011, and 2013; Dance Notation Bureau, "Notation of African Drumming" *Action! Recording!* no. 29 April 1983; 6, The Dance Notation Bureau Collection. SPEC.TRI.DNB.NEWSLETTERS.2, The Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

37. Dance Notation Bureau, "DNB Early History: Founding Personalities" SPEC.TRI.DNB.HPR.14, The Dance Notation Bureau Collection, Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

38. A few examples of such articles are John Selby, "Dance Movements Scored Like Music," *Associated Press Feature Service* July 2, 1940; Ann Hutchinson. "Adventures in Dance Notation" *Dance Observer* 16 no. 1, 1949: 4. Ann Wilson, "Scoring the Dance," *Dance*, May 1942.

published periodicals, teaching resources, and books.[39] Furthermore, the DNB offered a training structure that taught notators how to use the system and certified them. For some, training in Labanotation opened opportunities for paid work in dance that was otherwise difficult to find.[40] Notation competency became an asset in the academic job market, and a requirement for certain academic dance positions. In addition, the DNB functioned as a gateway, where formal theory discussions decided what theoretical ideas would be incorporated into official Labanotation usage.[41]

Thus, the myriad activities of the DNB during its early years were essential to the flow of creativity in Labanotation. Naturally, to be creative with the system, notators had to know what it was and how and why to use it. The field provided resources for individuals to learn notation's basics—a prerequisite for meaningful creative activity. The increased job prospects for notators who had trained in the system also provided a financial incentive for creative participation in the field.

Furthermore, for a notator's originality to be recognized, it needed the context of the field. Roles within the DNB structured social interactions between members of the field. In addition, notation publications and meetings were a formal environment where the notation activities of individuals could be refined.

Take as a case in point the field's role in Intravaia's work with non-human notations. First of all, Intravaia completed Labanotation certification courses through the Advanced and Teacher Training levels.[42] Thus, Labanotation training provided her with the foundational knowledge needed to create meaningful contributions. Second, Intravaia interacted with others in the field to understand how biological notations would relate to existing work. In their correspondence of

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Ann Hutchinson. "Time for RECONVERSION: An Introduction to Dance Notation," *Dance*, July 1949, 18–19. Jessie Burchess, "Notation and Modern Dance Repertory," *Dance Observer*, October 1949, 113–114.

39. Periodicals of the DNB included the *Dance Notation Record*, the *DNB Newsletter*, *DNB Teachers Bulletin*, and the *Labanotator*. The *Record* offered insider notation theory and field news to Bureau Associate members ($1 per year membership). It was published from 1943–1945 and then 1947, and 1951-60. The *DNB Newsletter*, published from 1948 to the present, focused on a broader audience than the *Recor*d. The *DNB Teachers Bulletin*, published intermittently from 1964–1988, offered support to certified teachers of Labanotation. The *Dance Notation Journal*, published 1983–1988; and the *Labanotator*, published 1978 to 1994. The Jerome Lawrence and Robert E. Lee Theatre Research Institute holds complete runs of each of these periodicals. SPEC.TRI.DNB.NEWSLETTERS, The Dance Notation Bureau Collection, The Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

40. Eve Gentry, "Dance Notation: The New Profession," *Health, Physical Education and Recreation* 20, no.1 (February 1949): 82.

41. Dance Notation Bureau, Theory Bulletin Board. http://dancenotation.org/theorybb/frame0.html.

42. Toni' Intravaia, DNB Oral History, (2016). The Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

1966–1967, Intravaia and then-Director of the DNB Lucy Venable substantially discussed Intravaia's animal notation.[43] Dialog between the two women hashed out theoretical aspects of Intravaia's notation and discusses other related projects within the field.

This interaction demonstrates how relationships within the field helped nurture creative ideas. In her capacity as DNB director, Venable was obligated to serve members of the field like Intravaia. Venable's feedback on Intravaia's notation helped Intravaia ensure her work would meet the standards of the field. The field provided a social context where Intravaia could draw on Venable's authoritative knowledge to refine her idea.[44] Without the field, Intravaia might not have refined and shared her idea. In that case, she may never have clarified her thinking, and her idea might have stopped short of creativity, remaining a merely original thought. At a small scale, this situation exemplifies how the field participates in the creative process. It is logical to suppose that the field operated similarly for other notators, informing them via training, incentivizing their creative activities, and ultimately testing and refining their ideas.

If accepted by the field, a notator's creative work was ultimately validated and included into field publications. Once an idea is published, it can be transmitted more widely, ultimately becoming part of the domain. Another leading field organization that played a role in selecting creative ideas for integration into the domain was the International Council of Kinetography Laban (ICKL). ICKL was founded in 1959 to unify the two systems of Labanotation and Kinetography Laban. Differences in the two systems had appeared due to international communication challenges during the World War II years. Over time, ICKL also managed new technical developments in the Laban system through a formal process. Members of ICKL had the right to submit technical ideas to the Council for official discussion at Biennial conferences. Elected Fellows of the organization voted on proposals for changes. As ICKL's code stipulates, "any resolution of a technical matter [. . .] shall require for its adoption the separate approval of a three-fourths (3/4) majority of the Fellows present at a meeting of the council."[45] This rule is saying that a group of Fellows, who were designated experts in the system, had to formally approve proposed changes to the system through a majority vote. Like the theoretical

43. Toni' Intravaia, Letter from Intravaia to Venable, February 1, 1967; Venable, Lucy. Letter to Intravaia with comments on spider notation, April 8, 1967. SPEC.TRI.DNB.MISC.3, The Dance Notation Bureau Collection, Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

44. Toni' Intravaia, "Labanotation and Zoology," in *Proceedings of the 9th Biennial Conference* (International Council of Kinetography Laban, 1975), 4; "Recording of Animal Behavior through Labanotation," in *Proceedings of the 27th Biennial Conference* (International Council of Kinetography Laban, 2011), 153.

45. Item 7.05 (b), Code of the International Council of Kinetography Laban, 2005, https://ickl.org/wp-content/uploads/2018/03/ICKL_code2005.pdf.

discussions of the DNB, the technical sessions of ICKL where these proposals were discussed and voted upon acted as gateways for notation ideas. In effect, the creative power was not in any individual notator but in the organization of ICKL, which had the power to decide whether new ideas would be rejected or added to the permanent record of the domain of dance in the form of the formalized written documents it created and preserved.

The Role of the Domain

Creativity in Labanotation at the domain level is about the transmission of creative ideas within culture via abstract symbolic representation. Labanotation is a language that symbolically encapsulates dance knowledge, helping Labanotation users preserve and pass on what came before. Since Labanotation originated in 1928, libraries and archives worldwide have built collections of thousands of Labanotated dance works.[46] Furthermore, Labanotation also served as a vehicle for illustrating and clearly communicating technical discussions about system itself beyond the reach of social groups through archived publications like textbooks and conference proceedings.

When the notation field endorses a Labanotation theory idea, the idea is then recorded in written documents and archived for future reference. For example, the technical papers within proceedings of ICKL's Biennial Conference are a textual record of creativity with the Laban system that may be consulted later through archived versions of the documents. The archived proceedings provided a detailed account of the organization's decisions on notation usage. By encapsulating and conveying notation decisions in a symbolic language, this information may then extend beyond the reach of individual memory and social relationships to be consulted at a later time by anyone literate in the symbolic language.

Specifically, the 1977 "ICKL Report on Technical Matters" demonstrates this type of information preservation. The report is a 282-item list of official updates to the system from ICKL's founding in 1959 through 1977, with symbolic examples and corresponding verbal explanations.[47] This extensive chart provides a concrete record of the official theory decisions of the first twenty years of the ICKL community. This document contains a record of official rules that then provided a foundation for future creative activity.

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46. Mary Jane Warner and Frederick Warner, *Labanotation Scores: An International Bibliography* (International Council of Kinetography Laban and The Dance Notation Bureau, 1984). https://ickl.org/publications/bibliographies-and-index/.

47. "ICKL 1977 Technical Report," International Council of Kinetography Laban. https://ickl.org/publications/bibliographies-and-index/.

Furthermore, the ICKL code stipulated that members adhere to the official decisions conveyed in the proceedings in their notation practice.[48] As an example of how such information informed creative activity, Lucy Venable referred to ICKL's record of official decisions in her correspondence with Intravaia about notations for the Zygoballus spider.[49] Regarding a question of a specific form of flexion for a spider's limb, Venable advised, "[. . .] I suggest you look at the Changes paper you got at the conference under specific flexions beginning on p. 52." Venable is referring to her proceedings paper describing proposed changes to the system and the official position of ICKL on those changes, decided during the 1965 conference.[50] Venable's suggestion contains the assumption that Intravaia would want to refer to the system's officialized rules to develop her new idea. Ultimately, Intravaia incorporated this feedback and achieved publication of her ideas, making them part of the written record of Labanotation knowledge.

This correspondence is an example of creative interaction between the notator, the notation field, and the domain. Labanotation archives facilitate the transmission of official notation information via the social field that individuals then use in their creative endeavors. Any item recorded as part of the technical discussions of Labanotation theory in the ICKL proceedings is proposed for discussion by an individual member, evaluated by the social structure of ICKL,[51] encapsulated into written form for preservation, and finally, drawn upon in the creation of new ideas. Venable and Intravaia, contemporaries interacting with symbolic information from their own time, are members of the notation field interacting with the domain—the enduring knowledge stored in the conference proceedings.

In Csikszentmihalyi's thought, abstract symbolic languages like Labanotation are critical to creativity because they stabilize field rules and conventions to refer to later by members of the field.

However, the impact of Labanotation on creativity extends beyond just its promotion of creativity among individual notators or dancers. The domain, after all, is the point of contact with the larger culture, and symbolic languages also facilitate the integration of creative ideas into other domains. To further clarify my point about the role of the domain in creativity, I will now point to examples in

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48. International Council of Kinetography Laban/Labanotation, Code "Rights and Obligations of Members" item 2.02, 2005; 2. https://ickl.org/ickl/constitution/.

49. Lucy Venable, letter to Toni' Intravaia, April 8, 1967. SPEC.DNB.MISC.1, Dance Notation Bureau Collection, The Jerome Lawrence and Robert E. Lee Theatre Research Institute, The Ohio State University.

50. "Conference Proceedings 1959–1977," International Council of Kinetography Laban, 1996. https://ickl.org/wp-content/uploads/2016/03/Proceedings_1959_77_OCR.pdf.

51. International Council of Kinetography Laban/Labanotation, Code "Rights and Obligations of Members" article 2.02, 2005; 2; article 5.05 "Rights and Obligations of Fellows" 9. https://ickl.org/ickl/constitution/.

which Labanotation helped information flow beyond the notation field to influence decisions outside the notation field.

As discussed above, Doris Green's Greenotation scores record traditional dance+music forms that may otherwise have died with the memories of the creators.[52] As Green writes, "Unfortunately, any society that is entirely dependent on oral communication to transfer their culture between generations is doomed to fail because of outside misinterpretation and/or the breakdown of human memory."[53] The African Union included Greenotation into the official curriculum.[54] Consequently, Greenotation provides a pathway for the preservation of dances+rhythms that had previously been handed down strictly through oral tradition.[55] Green's work extended beyond the dance notation field. The impact her work has had on anthropology, education, and culture is an example of how individual creativity may change thought and practice at the domain level.

In addition, the many theatrical dance works which have been Labanotated and then later restaged from the score provide examples of how Labanotation may preserve and transmit dance knowledge through the cultural domain. Because one can recreate the steps and structure of a dance work from Labanotation without having seen or performed in the original work, knowledge of specific works have been reintroduced into or retained in performance practice because the works were documented in Labanotation. One example of an instance in which knowledge of a work has been preserved through Labanotation is Nijinsky's *Les Apres-midi d'un Faune*.[56]

Along the same lines, the theoretical framework that underpins Labanotation is also itself a creative product that influenced dance. In contrast to smaller-scale creativity, such as the proposed changes to the existing system discussed in the previous section, Laban's theory of movement shifted the entire paradigm of Western theatrical dance in the 20th century. As such, it exemplifies

52. Green, "From Pitman Stenography to Greenotation/Labanotation," 218.

53. Green, "The Saga of African Studies and Black Studies Departments," 21.

54. Green, "From Pitman Stenography to Greenotation/Labanotation," 218.

55. Doris Green, "The Saga of African Dance and Black Studies Departments," *The Journal of Pan African Studies* 4, no. 6 (2011): 16–36, http://www.jpanafrican.org/docs/vol4no6/4.6-2SagaofAfrican.pdf.

56. Les Apres-Midi d'un Faune was first notated by Nijinksy in his notation system and passed down orally through generations of dancers before it was reconstructed and Labanotated by Ann Hutchinson Guest and Claudia Jeschke. Curran, "The Experience of Staging Nijinsky's *L'Apres midi d'un faune,"* 2010; Claudia Jeschke and Ann Hutchinson Guest, *Nijinsky's Faune Restored: A Study of Vaslav Nijinsky's 1915 Dance Score : L'après-midi D'un Faune and His Dance Notation System : Revealed, Translated Into Labanotation and Annotated.* (Netherlands: Gordon and Breach, 1991). Helen Thomas, "Reconstruction and Dance as Embodied Textual Practice," in *Rethinking Dance History: Issues and Methodologies*, ed Geraldine Morris and Larraine Nicholas (London and New York: Routledge Taylor and Francis Group), 69–81.

what Csikszentmihalyi calls *eminent creativity*,[57] or especially impactful creativity. This "big creativity" goes beyond mere usefulness within in a context. Eminent transforms culture. In a statement that directly applies to the story of 20th century modern dance, Csikszentmihalyi writes of the evolution of domains,

> The multiplication and gradual emancipation of domains has been one of the features of human history across the planet. For a long time almost every aspect of cultural thought and expression was unified in what we would call a religious domain. Art, music, dance, narrative, proto-philosophy, and proto-science were part of an amalgam of supernatural beliefs and rituals. Now every domain strives to achieve independence from the rest, and to establish its own rules and legitimate sphere of authority.[58]

This statement generalizes the story of the separation of Western theatrical dance from other domains in the 20th century. According to Csikszentmihalyi, this process of cultural evolution depended on the symbolic transmission of information.[59] By extension, Labanotation was an integral part of the evolution of dance because it provided an abstract symbol system for the transmission of dance information. Before Labanotation's existence, information transmission in dance occurred primarily through embodied/oral transmission, verbal description, or through limited systems of notation. All of these modes of transmission made dance knowledge more vulnerable to erosion over time.

Of course, this is not to deny that embodied transmission was a valuable mode of information transfer. Diana Taylor problematizes the idea that written texts are the only reliable way to transmit cultural information when she points out that the elevation of written archives above embodied memory reinforces oppressive cultural structures.[60] On the one hand, I agree with Taylor that the historical overemphasis on written transmission is troubling. However, on the other hand, as in the examples of Greenotation and *Les Apres-midi d'un Faune*, I still insist that Labanotation texts played a unique role in the circulation of movement ideas, and ultimately, the evolution of dance knowledge and practice.

Existing modes of transfer prior to Labanotation were important but also limited. Earlier systems of notation depended on familiarity with specific dance styles.[61] Furthermore, oral/embodied transmission was subject to the slippage of

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57. Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention,* 27–32.

58. Csikszentmihalyi, *The Systems Model of Creativity*, 106.

59. Csikszentmihalyi, *The Systems Model of Creativity*, 108–109.

60. Diana Taylor, *The Archive and the Repertoire*: *Performing Cultural Memory in the Americas* (Durham: Duke University Press, 2003), 1–52.

61. Guest, *Labanotation*, 3.

individual memory. Labanotation quantified and rationalized movement in a symbol system independent of verbal language and based on abstracted concepts of "body, space, and expression."[62] Thus, Labanotation employed "clearly articulated conceptual schemas"[63] that structured the transmission of knowledge and creation of new works and ideas in the domain of dance. Even more critically, Labanotation provided a way for embodied knowledge to be newly recognized as a legitimate domain of knowledge and professional practice within a logocentric information culture, and even fueled the recognition of dance as a legitimate field of study and supported the formation of academic departments of dance.

According to Csikszentmihalyi, creativity at the domain level depends on an abstract symbolic system like Labanotation.[64] Effectively, Labanotation was a language for movement that freed movement knowledge from dependence on an individual performer's subjective experience by encapsulating it in symbols. These symbols could be stored outside of the body on paper. Even film and motion capture technology that emerged later could not separate movement knowledge from memory or performance the way Labanotation did. Nor, as we have learned from the monumental challenges of moving image and digital preservation, could film, video, or digital documentation provide the stability that paper notation scores brought to movement knowledge. Therefore, even though it was not a "universal" system of movement description (as many of its proponents claimed), Labanotation was indeed an extraordinarily useful development in the history of dance.

Symbolic transmission takes various forms, including scores of dance works, textual records of notation discussions, and even the circulation of a theory. Because of Laban's groundbreaking movement theory[65] individuals may access the knowledge of the past in the form of the archival record and incorporate the work of the past into new creative products, completing the cycle of creation through the production, circulation, and use of the language of Labanotation.

Conclusion

Creativity is abundant in the Labanotation system's history. From its origins as a culture-changing symbolic language, creativity was in the DNA of the system's practitioners, field organizations, and domain knowledge. Whereas much scholarly work has focused on the correct practical application of the system, there is incredible potential for creativity with Labanotation emerging every day that has been overlooked.

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62. Vera Maletic, Body, Space, Expression (Berlin: De Gruyter, 1987).

63. Curran, "The Experience of Restaging Nijinsky's L'Apres-midi d'un Faune," 14.

64. Csikszentmihalyi, *The Systems Model of Creativity,* 108-109.

65. And due to the work of many who refined and worked out the system. Victoria Watts, "Benesh Movement Notation and Labanotation: From Inception to Establishment 1959-1977," *Dance Chronicle* 38 no. 3 (September 2015): 275-304.

Notators must continue to adapt the system for today's needs. For example, many dance works have been created by disabled choreographers and for disabled performers. Labanotation could potentially describe and preserve these important choreographic works, but the existing structured Labanotation staff assumes normative body morphology and ability. The system does not currently have established precedents for notating dance with adaptive devices such as wheelchairs. Notators should work creatively to find solutions. Furthermore, adaptive tools could meet the needs of people with disabilities. As just one possible example, 3-D modeled tactile scores could make it more possible for blind and low-vision performers to read notated works.

In addition, advances in the robotics field merit further development of Labanotation for programmed movement. The shift from analog to digital information transmission also creates new problems for Labanotation production, storage, and transmission that need to be addressed by individual inventors within the system. For example, how best to digitally write, preserve, and transmit scores for both ease of use and long-term stability while also protecting the intellectual property rights of choreographers.

Ultimately, creativity demands that individual notators take risks, understanding that the field may reject their work. It is only through non-conformism that individual notators create valuable adaptations to the system.

The Labanotation field must continue promoting and selecting the best work from the creative activities of its members. While I am primarily arguing for the demonstrated creativity of Labanotation, admittedly, there are conservative currents within the field that have, at times, limited creativity. Future research could draw from organizational studies of creativity to better understand mechanisms that have prevented the system's creative evolution and how the field may foster creativity in the future.

Furthermore, we must keep in mind that the domain of dance has continued to evolve since the invention of Labanotation and will continue to evolve. Accordingly, for Labanotation practice to endure, it must also change over time—and possibly radically change. A field culture of creativity will be needed to ensure that Labanotation's knowledge is not perceived as useless or calcified as dance knowledge changes with culture.

Moreover, we must also value creativity in Labanotation for its ability to fulfill the human need for creative acts. At the individual level, creativity satisfies the human need to contribute to the world; fields that encourage creativity can adapt as needed and nurture their potential to impact culture. I propose that the creativity foundational to the system of Labanotation offers a model of systemic creativity in action that can promote our understanding of creativity more generally and continue to make Labanotation a vitalizing force in dance.

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